YEMEL'YANOV, N.F., prof.; CHELIKANOV, K.N.; LEUS, A.M.; VALIYEVA, S.S.

Ryazan Combine of Artificial Fibers in the light of sanitary hygiene. Nauch.trudy Riaz.med.inst. 23:30-37 '63. (MIRA 18:12)

1. Kafedra gigiyeny (zav. - kafedroy - prof. N.F.Yemel'yanov) Ryazanskogo meditsinskogo instituta imeni akademika I.P. Pavlova i Ryazanskaya oblastnaya sanitarno-epidemiologicheskaya stantsiya (glavnyy vrach - A.M.Leus).

LEUS, E.Ye.; RAPOPORT, D.I.; PEREPLETCHIKOVA, V.S.

Gamma globulin seroprophylaxis in Botkin's disease. Zdrav. Bel. 9 no.1:37-38 J'63. (MIRA 16:8)

1. Iz Gomel'skoy gorodskoy sanitarno-epidemiologicheskoy stantsii (glavnyy vrach V. Prokhas'ko).
(HEPATITIS, INFECTIOUS) (GAMMA GLOBULIN)

SOV/137-57-11-21387

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 11, p 105 (USSR)

AUTHOR: Leus, I.S.

TITLE: An Investigation of a Process of Extrusion of Dies (Issledovaniye protsessa vydavlivaniya matrits)

PERIODICAL: Sb. stud. nauchn. rabot. Belorussk, politekhn. in-t, 1957, Nr 3, pp 26-28

ABSTRACT: Experimental work is performed in cold extrusion of Nr-15 steel. The stresses involved in cold extrusion are observed by means of specimens with annular hollow chamfers and lightening cavities of various shapes and sizes. The most efficient reduction in stresses is provided by a conical cavity tapering 10^{o} on each side.

M.Ts.

Card 1/1

SEVERDENKO, V.P.; LEUS, I.S.

Distribution of maximum specific pressure along the width of a strip during the cold rolling of brass. Izv. vys. ucheb. zav., tsvet. met. 7 no.5:123-128 '64 (MIRA 18:1)

1. Kafedra mashin i tekhnologii obrabotki metallov davleniyem Belorusskogo politekhnicheskogo instituta.

SEVERDENKO, V.P.; LEUS, I.S.

Study of specific parameters of the focus of deformation in rolling of copper at different temperatures. Dokl. AN BSSR 9 no. 5:310-311 My '65 (MIRA 19:1)

1. Fiziko-tekhnicheskiy institut AN BSSR i Belorusskiy politekhnicheskiy institut. Submitted December 14, 1964.

LEUS, S. I.

LEUS, S. I.: "Investigation of the nutrition of colonial birds of the Volga delta and their role in the national economy." Published by the newspaper "Pskovskaya pravda." Acad Sci Estonian SSR. Department of Biological, Agricultural, and Medical Sciences. Pskov Medical Inst imeni S. M. Kirov, Pskov, 1956
(Dissertation for the degree of Candidate of Biological Sciences)

So; Knizhnaya Letopis', No 36, 1956, Moscow.

LEUS, S.I., prepodavatel'; MESHKOV, M.M., red.; TIMOFEYEV, V., tekhn. red.

[Bird taxidermy] Izgotovlenie chuchel ptits, Pskov, Izd-vo gazety "Pskovskaia pravda," 1960. 23 p. (MIRA 14:10)

1. Pskovskiy pedagogicheskiy institut im. S.M.Kirova (for Leus).
(Taxidermy)

GOL'DBERG, I.Ye.; [illegible]

Automation of the technological process of manufacturing stator plate sections for micromotors and electric motors of the unified series. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh. inform. 18 no.5:30-33 My '65. (MIRA 18:6)

LEUSENKO, N. M.

LEUSENKO, N. M.--"Pregnancy and Birth in Women Whose Kidneys Have Been Removed." * (Dissertation for Degrees in Science and Engineering Defended at USSR Higher Educational Institutions.) Min of Health Protection Ukrainian SSR, Kharkov Medical Inst, Kharkov, 1955

SO: Knizhnaya Letopis' No. 25, 18 Jun 55

* For Degree of Candidate in Medical Sciences

LEUSENKO, N.M., kand.med.nauk; VORONETSKIY, S.P. [Voronets'kyi, S.P.], kand.med.nauk

Lemon as a contraceptive. Fed., akush. i gin. 20 no.1:59-60 '58. (MIRA 13:1)

1. Kafedra akusherstva i ginekologii No.2 (zav. - dots. T.Ya. Kalinichenko) Kiyevskogo ordena Trudovogo Krasnogo Znameni meditsinskogo instituta im. akad. A.A. Bogomol'tsa (direktor - dots. I.P. Alekseyenko).
(LEMON) (CONCEPTION--PREVENTION)

VORONETSKIY, S.P., kand. med. nauk.; LEUSENKO, N.M., kand. med. nauk.

Use of ergam in obstetrical practice. Akush. i gin. 34 no.6:97-99 N-D '58. (MIRA 12:1)

1. Iz kafedry akusherstva i ginekologii No.2 (zav. - dots. T.Ya. Kalinichenko) Kiyevskogo ordena Trudovogo Krasnogo Znameni meditsinskogo instituta imeni akad. A.A. Bogomol'tsa (dir. - dots. I.P. Alekseyenko).

(ERGOT ALKALOIDS, ther. use
ergotoxin prep. ergam in labor (Rus))
(LABOR
adjuvant ergotoxin prep. ergam (Rus))

LEUSENKO, N.M., kand.med.nauk; NIKOLAYEVA, T.M., ordinator

Treatment of cracked nipples with galascorbin. Ped. akush. i gin. 22 no. 1:55-56 '60. (MIRA 13:8)

1. Kafedra akusherstva i ginekologii No. 2 (zav. - dots. T.Ya.Kalinichenko) Kiyevskogo ordena Trudovogo Krasnogo Znameni meditsinskogo instituta im. akad. A.A. Bogomol'tsa (dir. - dots. I.P. Alekseyenko [I.P. Aleksieienko]).
(BREAST--DISEASES) (ASCORBIC ACID)

LEUSENKO, Ye.A., inzh.

Economic justification for the specialization of repair work in enterprises of the coal industry using linear programming methods. Ugol' Ukr. 9 no.12:29-31 D '65. (MIRA 19:1)

1. Donetskiy nauchno-issledovatel'skiy ugol'nyy institut.

LEUSHCHENKO, S. V.

USSR/Engineering - Magnets, Permanent
Magnetometers

Apr 50

"Small-Dimensional Instrument for Testing Permanent Magnets," M. L. Gomberg, S. V. Leushchenko, Kiev Elec Instr Plant, 1½ pp

"Zavod Lab" Vol XVI, No 4

Describes new-type magnetometer based on principle of needle-indicator dynamometer. Instrument has disadvantage common to all devices of this type: Readings have absolute meaning only for shape and dimensions of magnetic ore for which instrument has been calibrated. Has some good qualities: low sensitivity to shock and jerks, absence of cores, agate bearings and parts made of special magnetic materials; no polarity of readings, and latter do not depend on external magnetic fields.

PA 160T40

119-3-9/14

AUTHORS: Gol'de, F. A., Leushchenko, S. V.

TITLE: Remote Control of Temperature in Silos
(Distantsionnyy kontrol' temperatury v kagatakh)

PERIODICAL: Priborostroyeniye, 1958, Nr 3, pp. 26-27 (USSR).

ABSTRACT: The temperature control of silos avoids their spontaneous combustion.
Several thermocouple elements were fitted into the silos. The elements change their electric resistance due to heating. The magnitude of this resistance is measured by means of a portable device containing a bridge circuit.
Plugs at the ends of the thermocouple elements and connecting rods establish the connection with the portable device. The measuring instrument is gauged in °C. The thermocouple elements make possible temperature measurings from -3o to +5o°C. Temperature is measured precisely to ± 2,5° with the described device (TPP - 2K, TPK - 1).
There are 6 figures, and 0 references.

AVAILABLE: Library of Congress.

Card 1/1 1. Silos--Temperature control

KURBATOV, I.M.; LEBEDEVA, M.I.

Effect of peat application on the biological activity of turf-Podzolic soils. Pot.; issl. Bel. otd. VIM. no.5:195-198 '63. (MIRA 17:5)

LEUSHEVA, V. A.

The use of sulfate soap for soap manufacture. A. A. Sokolova, B. D. Bogomolov, and V. A. Leusheva. *Bumazh. Prom.* 31, No. 2, 16–19(1956).—Russian contr. Yields of raw sulfate soap (I) varied from 50 to 80 kg./ton of pulp. Production directions issued for mills which do not have fractionation equipment recommend: taking up the I in H_2O, filtering, adding NaCl or Na_2SO_4 to salt out the soap, and treating with H_2SO_4 to form refined tall oil (II), which is washed, dried, and used in soap manufacture. The black liquor from the I settling tanks is treated with the NaCl soln. from the salting-out step, and the mixt. is treated with the $NaHSO_4$-Na_2SO_4-lignin soln. from the purified soap decompn. step to give a lignin ppt., which is sepd. and washed. The sepn. of lignin from 1 l. of soln. required 205 g. $NaHSO_4$. For a plant producing 300 tons per day of kraft pulp, and with a yield of 60 kg. I per ton of pulp, the $NaHSO_4$ formed during the decompn. of the soap is 3.5 tons per day, which is sufficient to give 2 tons of lignin per day. The yield of II from salt-treated I was 15% higher than the yield of II from crude I, and 10–15% less H_2SO_4 was used in the conversion of the soap to tall oil. Soap prepd. from 60% animal fats and 40% tall oil was found to have excellent detergent, emulsifying, and foam stability properties, and would be suitable for domestic use.

John Lake Keays

LEUSHIN, A.I., deputat Verkhovnogo Soveta SSSR

We shall increase pork production. Veterinariia 36 no.2:34-37 F '59. (MIRA 12:2)

1. Direktor plemennogo sovkhoza "Verkhne-Obskiy," Smolenskogo rayona, Altayskogo kraya.
(Smolenskoye District--Swine--Feeding and feeding stuffs)
(Veterinary hygiene)

KUSLIK, A. I.,

"Reinforcement of Chemoads through Combined Treatment with Binding Materials for Highway Constructions." Dissertation for Degree of Candidate of Technical Sciences) Min Higher Education USSR, Leningrad Polytechnical Inst imeni M. I. Kalinin, Leningrad, 1955

SO: K-1036 28 Mar 56

AUTHOR: Leushin, A.I., Candidate of Technical Sciences 98-58-3-15/22

TITLE: Rationalization and Invention (Ratsionalizatsiya i izobretatel'stvo) Electric Device for Checking the Plasticity of Concrete (Elektricheskiy pribor dlya kontrolya plastichnosti betonnoy smesi)

PERIODICAL: Gidrotekhnicheskoye Stroitel'stvo 1958, Nr 3, pp 49-51 (USSR)

ABSTRACT: The consistency of concrete depends on the amount of water and sand (or gravel) in the mixture. The moisture content of the sand has therefore a bearing on the consistency or plasticity of a concrete mixture. In concrete plants, the consistency of concrete is usually checked by samples taken from time to time, by means of a "normal" cone, the setting of which determines the plasticity of the concrete. In March 1955, Engineers Rezikov and Chernyshev proposed to utilize for measuring purposes, the relationship which exists between the power of the electric current of an electric motor and the consistency of concrete. In this connection experimental investigations were carried out at the concrete plants of the Kuybyshev Gidrostroy which determined by means of an

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Rationalization and Invention. Electric Device for Checking the Plasticity of Concrete

oscillograph the variations in the power of the current and the motor at different periods during the operation of a concrete mixer. The data obtained helped to establish a chart and a device for the continuous checking of concrete consistency during production. The device provided for 2 variants: 1) the PKPB-1, used for measuring the current of the mixer motor; 2) the PKPB-2, for measuring the changes in power utilized by the motor. The PKPB-1 was equipped with a 2-anode kenotron as inertia and amplifying element; a voltmeter connected with the anode circuit of the kenotron indicated the tension in proportion to the anode current corresponding with the readings of a scale in cm, showing the plasticity of the concrete by the setting of the cone. In the variant PKPB-2, a standard switchboard wattmeter was used. Best results were obtained with VIS one-phase wattmeters, with a nominal current 5 a and nominal tension of parallel winding of 127 v. This determined the direct relationship which exists between the power "R" of one phase of the motor and the function of the setting of the normal cone "K". On the basis of the graphic

Card 2/3.

Rationalization and Invention. Electric Device for Checking the Plasticity of Concrete

of the established dependence on the 2,400 liter concrete mixer during operation, the scale of the watt meter was graduated in units of the consistency of the concrete (Figure 5). Both variants of the device have been tested simultaneously on 42 mixtures in order to compare the readings of PKPB-1 and PKPB-2. The results are shown in a table. The diagrams were worked out by the dotsents of the Kuybyshev industrial' nyy institut (Kuybyshev Industrial Institute), Candidates of Technical Sciences A.I. Yakobs, and the author, and accomplished by Ye.N. Kolobayev, V.M. Dmitriyev and M.A. Yel'kin.

Card 3/3 **1. Concrete-Test methods 2. Ocillographs-Applications 3. Concrete-Preparation 4. Concrete-Properties-Determination**

LEUSHIN, A. I.

137-1958-3-4793

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 48 (USSR)

AUTHOR: Leushin, A. I.

TITLE: Determination of the Major Circuit Parameter of a Steel-smelting Arc Furnace by Means of Electrical Meters (Opredeleniye glavnogo parametra tsepi dugovoy staleplavil'noy pechi po electroschetchikam)

PERIODICAL: Sb. nauchn. tr. Kuybyshevsk. industr. in-t, 1956, Nr 6, Vol I pp 43-50

ABSTRACT: In order to establish the optimum electrical and energetical regimen for a steel-smelting arc furnace, it is essential that its basic parameters be determined, namely: the inductive reactance of the phase, x, and the active resistance (apart from the resistance of the arc itself), r. The short-circuit method, employed in the determination of x and r, yields values which are lower than those which would be observed with an operating current. The second method, involving direct measurement of voltages, power ratings, and amperages, followed by a calculation of the x and r values, presents practical difficulties and does not give accurate results; the x and r values so obtained are true only for the

Card 1/2

Determination of the Major Circuit Parameter of a Steel-smelting (cont.)

one value of the current measured; in actual practice, however, the current fluctuates continuously, and the average values of x and r per period differ from the values obtained by direct measurement. A method is proposed in which the x and r values are determined by means of ampere-hour meters, which are connected to the primary of the transformer and permit a direct determination of the mean current for a given period of time. Since the voltage on the primary changes only slightly and rather infrequently, it can be determined with a voltmeter in the usual fashion. A method is shown in which a circular graph is plotted from data obtained by measurement and computation, namely: the value obtained for the power factor, and the average value of current. In contrast with the customary method, the circumference of the power factor values is plotted first, then the center of the circle representing the values of currents and power ratings is located and the appropriate circumference is drawn.

N. O.

Card 2/2

LEUSHIN, A.I., dotsent, kand.tekhn.nauk

Distribution of electric current in the three dimensional model of a furnace metal bath. Izv.vys.ucheb.zav.; energ. 3 no.5:70-79 My '60. (MIRA 13:6)

1. Kuybyshevskiy industrial'nyy institut imeni V.V.Kuybysheva. Predstavlena kafedroy teoreticheskoy i obshchey elektrotekhniki.
(Metallurgical furnaces--Models)

34137
S/149/62/000/001/002/009
A006/A101

1.1710 (2402)

AUTHOR: Leushin, A. I.

TITLE: Electromagnetic mixing of molten aluminum in a furnace

PERIODICAL: Izvestiya vusshikh uchebnykh zavedeniy, Tsvetnaya metallurgiya, no. 1, 1962, 94 - 100

TEXT: Information is given on results of experimental investigations of the electromagnetic effect on molten Al in a 50 to 250 kg furnace with 40x60x50 cm internal melting space, chrome-magnesite roasted brick lining and a stainless steel shell. The investigation was made by 3 methods: 1) with the aid of an external magnetic field and pool current, the electrodes being placed on the vault and the lateral walls of the furnace; 2) the induction method with the aid of an external magnetic field produced by a coil with an iron core; 3) and a coil without an iron core. The experiments showed that the effect of an electromagnetic field on the molten metal brings about its motion in the direction desired. Regularities of the motion of the molten metal depend on the furnace shape and the inductor type. Most efficient results were obtained with the use of the induction method and a coil without an iron core. For the electromagnetic mixing of

Card 1/2

C

LEUSHIN, A.I., kand.tekhn.nauk, dotsent

Study of current distribution in a tub containing molten metal. Elektrichestvo no.4:50-54 Ap '62. (MIRA 15:5)

1. Kuybyshevskiy industrial'nyy institut imeni Kuybysheva.
(Electric furnaces)

L 12237-63 BDS S/271/63/000/004/033/045

47

AUTHOR: Leushin, A. I.

TITLE: Experimental determination of the accuracy of modeling with use of volumner grid electrical models

PERIODICAL: Referativnyy zhurnal, Avtomatika, telemekhanika i vychislitel'naya tekhnika, no. 4, 1963, 16, abstract 4B80 (Dokl. 4-y Mezhvuz. konferentsii po primeneniyu fiz. i matem. modelirovaniya v razlichn. otraslyakh tekhn. Sb. I; Moscow, 1961, 323-332)

TEXT: In replacing a continuous distribution with a discrete one, a certain systematic error is introduced. The author estimates the accuracy of modeling with the help of volumner quadrangular grids. The grid unit depends upon the geometrical dimensions of the object and of the model. The accuracy of modeling is higher in proportion as the density of the grid increases. In constructing a grid region, its contour is so chosen that it is the best possible approximation of the contour under study. For an experimental test of the accuracy of modeling, the modeled region must be described twice, but with different grid units. Since the error varies in proportion to the square of the grid unit, it can be estimated on the basis of the difference of the two solutions. The author experimentally determined the

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L 12237-63 S/271/63/000/004/033/045

Experimental determination .....

accuracy of modeling with a volumnar electric model of oval form. He measured the distribution of current in the model for various units (10 and 20 cm). The technique of measuring is described. G. R.

[Abstracter's note: Complete translation]

Card 2/2

LEUSHIN, A.I., kand. tekhn. nauk

Electrodynamic rotation of molten aluminum in a crystalizer. (MIRA 17:8)
Elektrotekhnika 35 no.6:50 Je '64.

ACCESSION NR: AT4042302 S/0000/63/003/000/0255/0262

AUTHOR: Leushin, A. I.

TITLE: The theory of thorough electromagnetic mixing of high-temperature melts in large-capacity furnaces

SOURCE: Soveshchaniye po teoreticheskoy i prikladnoy magnitnoy gidrodinamike. 3d, Riga, 1962. Voprosy* magnitnoy gidrodinamiki (Problems in magnetic hydrodynamics); doklady* soveshchaniya, v. 3. Riga, Izd-vo AN LatSSR, 1963, 255-262

TOPIC TAGS: furnace mixing, electromagnetic furnace, electromagnetic mixing, high temperature melt, aluminum production

ABSTRACT: The article deals with the nature of liquid matter and the internal structure of high-temperature melts. The author first discusses the so-called mean coordination number, which establishes the relation between the crystal structure and the chemical composition of the substance. The effect of the high temperature of metal melts in furnaces on the change in the internal structure of the melts is then analyzed. In order to determine the degree of homogeneity of the chemical composition of an aluminum melt in a 30-ton furnace (with vat measurements of 1 x 4 x 6 meters), metal samples were taken from various points of the vat. The results of a chemical and spectral analysis of the

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ACCESSION NR: AT4042302

composition in percentages is given in the article. The data showed that no significant change in the chemical composition of the aluminum melt occurs throughout the entire volume of the vat. This constancy of chemical composition is analyzed from the point of view of electron theory (the structural analogy of atoms in solid and liquid metal). Relaxation and diffusion-related factors are considered in this connection, and the probability process as a mathematical abstraction of the real process of melt mixing, occurring in time and under the control of probability laws, is analyzed. Regarding the process of mixing two or more component particles from the qualitative point of view, when they pass through the thickness of the melt, a formula is obtained for the "material balance" (or the equation for the conservation of the substance). In general, expressions are developed which provide a correct description not only of the ideal, but also of the real mixing processes, provided that the mixture is not removed from the vat. The problem of achieving uniformity in the heating of the entire volume of the melt is also considered. The author determined the temperature field pattern of a metal melt in the vat of a high-capacity furnace, on the basis of measurements made in an industrial aluminum smelting furnace. It was found that the temperature field of the melted metal vat is unstable, changing from melt to melt, and varying over the entire volume of the vat. The electromagnetic method

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of mixing is discussed as a means of attaining homogeneity in the chemical composition of the melt components and uniformity in the heating of the entire melt volume in the furnace. The essential features and advantages of this technique are described. All the possible kinds of effects of electromagnetic influences on high-temperature melted metal are classified and briefly discussed. The intensity (and thus the speed) of melt mixing is shown to be a function of the electrical power expended in the mixing process. A technical-economic comparison of all the mixing methods tested by the author revealed that the best was the induction method, using a magnetic field created by a coil with steel core connected to a 220-380 volt line. Orig. art. has: 1 table and 11 formulas.

ASSOCIATION: None

SUBMITTED: 04Dec63 ENCL: 00 SUB CODE: MM, ME

NO REF SOV: 003 OTHER: 001

3/3

S/058/61/000/010/047/100
A001/A101

24,7900

AUTHORS: Al'tshuler, S.A., Leushin, A.M., Morocha, A.K.

TITLE: On the theory of spin-lattice interaction in ionic crystals containing Cr^{3+} and Ni^{2+}

PERIODICAL: Referativnyy zhurnal.Fizika, no.10, 1961, 164, abstract 10V362 (V sb. "Paramagnitn. rezonans", Kazan', Kazansk. un-t, 1960, 57-62)

TEXT: The authors calculate probabilities of relaxation transitions A between spin levels of Cr^{3+} and Ni^{2+} ions. Calculating formulae are derived for both the case of low temperatures, when spin-lattice interaction is brought about on account of direct processes; and for the case of high temperatures, when the processes of Raman scattering of phonons play the main role. Probabilities A are calculated by means of the operator of spin-lattice interaction which includes all normal coordinates of the octahedral complex, being linear in this operator; the part of this operator depending on normal coordinates in the quadratic way, has not been taken into account.

V. Avvakumov

[Abstracter's note: Complete translation]

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23117

S/181/61/003/005/022/042
B136/B201

24.7900 (1163, 1395, 1482)

AUTHORS: Al'tshuler, S. A., Bashkirov, Sh., and Leushin, A. M.

TITLE: Theory of acoustic paramagnetic resonance in crystals containing ions of the iron group

PERIODICAL: Fizika tverdogo tela, v. 3, no. 5, 1961, 1501-1504

TEXT: The authors have calculated the coefficient of resonance absorption σ of ultrasonics in crystals, in which the paramagnetic ion of the iron group is surrounded by the octahedron of the nearest diamagnetic particles. If the spin Hamiltonian for the paramagnetic ions is known, σ may be calculated for transitions between spin levels and for an arbitrarily oriented magnetic field using methods of the paramagnetic spin-lattice relaxation theory. For $S > 1/2$, the quadratic spin operator F enters the formula for the said coefficient: $\sigma_{\alpha\beta} = Pqv^2|\langle\alpha|F|\beta\rangle|^2$, where α and β are the spin levels between which a transition takes place; P is given by

$$P = \frac{9\pi^2 N}{kT\omega^3 w_{1/2} d}\left(\frac{ee'}{R^3}\right)^2\left(\frac{r^2}{R^2}\right)^3. \qquad (2)$$

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23117
S/181/61/003/005/022/042
B136/B201

Theory of acoustic ...

N is the number of paramagnetic centers per unit volume, d is the crystal density, v and ν are the velocity and frequency of ultrasonics, R is the equilibrium distance between the paramagnetic ion and its diamagnetic neighbors (charge e'), $\overline{r^2}$ is the mean square distance of the 3d electron from the nucleus; q is a structure constant, and $\nu_{1/2}$ is the resonance-absorption-line width. $\hat{F} = \sum_{i,k=x,y,z} a_{ik}\hat{S}_i\hat{S}_k$. (4) is valid here.

Card 2/7

Theory of acoustic ...

Ni^{2+} in a tetragonal field	Cr^{3+} in a trigonal field
$a_{xx}=-a_{yy}=3(\lambda_y\Phi_y-\lambda_x\Phi_x),$	$a_{xx}=-a_{yy}=\lambda_y\Phi_y-\lambda_x\Phi_x+$ $+0.54(\lambda_y\Phi_x+\lambda_x\Phi_y-\lambda_x\Phi_z-$ $-\lambda_z\Phi_x),$
$a_{zz}=3(\lambda_x\Phi_x+\lambda_y\Phi_y-2\lambda_z\Phi_z),$	$a_{zz}=4.62(\lambda_x\Phi_x+\lambda_y\Phi_y-2\lambda_z\Phi_z),$
$a_{xy}=a_{yx}=-\frac{16}{35}(\lambda_x\Phi_y+\lambda_y\Phi_x),$	$a_{xy}=a_{yx}=-\lambda_x\Phi_y-\lambda_y\Phi_x+$ $+3.08(\lambda_x\Phi_x+\lambda_y\Phi_y)-$ $-0.54(\lambda_x\Phi_z+\lambda_z\Phi_x+\lambda_y\Phi_z+$ $+\lambda_z\Phi_y).$
$a_{xz}=a_{zx}=-\frac{16}{35}(\lambda_x\Phi_z+\lambda_z\Phi_x).$	$a_{xz}=a_{zx}=\lambda_x\Phi_z-\lambda_y\Phi_y+$ $+0.54(\lambda_x\Phi_y+\lambda_y\Phi_x)-$ $-3.54(\lambda_x\Phi_z+\lambda_z\Phi_x),$
$a_{yz}=a_{zy}=-\frac{16}{35}(\lambda_y\Phi_z+\lambda_z\Phi_y),$	$a_{yz}=a_{zy}=-\lambda_z\Phi_z+\lambda_y\Phi_y-$ $-0.54(\lambda_x\Phi_y+\lambda_y\Phi_x)+$ $+3.54(\lambda_y\Phi_z+\lambda_z\Phi_y).$

(4)

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Theory of acoustic ...

If, however, S = 1/2 (Ti^{3+}, Cu^{2+}, etc,) the operator $\hat{P}$ may be used to express the absorption coefficient as a linear function of the spin components. Estimations of S for these two cases are given in Tables 1 and 2. The striking difference between the values is, however, not so remarkable when considering how strongly the spin-lattice relaxation times differ for different ions. Calculations are performed for ideal crystals. The defects which are always present in the practice, require that sound waves scattered by the defects be taken into account. If the sound-wave amplitude is independent of the frequency, lattice vibrations caused by the scattered waves will depend on the spin system to a much greater extent than do vibrations caused by plane waves. This has been shown by Kochelaev (Ref.3: DAN USSR, 131, 1053, 1960). If S' = 1/2, σ will become independent of frequency; if, however, S' = 1/2, $\sigma \sim \gamma^2$. An experimental verification have to be based upon the following considerations: If it is conducted at a low temperature, at which the spin-lattice relaxation can be explained by single-phonon processes, it will not be possible to measure the absolute value of the absorption for ultrasonics, because the saturation factor depends upon the ratio of the transition probability between spin levels under the action of ultrasonics to the probability of a relaxation transi-

Card 4/7

Theory of acoustic ...

tion which is caused by thermal vibrations of the lattice. Instead, it is possible to clarify the dependence of resonance absorption on direction and polarization of sound waves and the magnetic field strength. There are 2 tables and 5 references: 2 Soviet-bloc and 1 non-Soviet-bloc. The most recent reference to English-language publication reads as follows: H. Van Vleck, Phys. Rev., 57, 426, 1940.

ASSOCIATION: Kazanskiy gosudarstvennyy universitet imeni V. I. Ul'yanova-Lenina (Kazan' State University imeni V. I. Ul'yanov-Lenin)

SUBMITTED: October 21, 1960

Card 5/7

30397
S/053/61/075/003/002/005
B125/B104

24,1800 (1063, 1144, 1482)

AUTHORS: Al'tshuler, S. A., Kochelayev, B. I., Leushin, A. M.

TITLE: Paramagnetic sound absorption

PERIODICAL: Uspekhi fizicheskikh nauk, v. 75, no. 3, 1961, 459 - 499

TEXT: This is a review of papers on paramagnetic sound absorption, published in the years 1951 to 1961. It is divided into the following chapters: introduction; paramagnetic resonance absorption of sound; crystals containing ions of the iron group; ions with the effective spin $S'>1/2$; effect on Ni^{2+} ions on an MgO crystal; ions with the effective spin $S' = 1/2$; crystals containing ions of rare-earth elements; crystals containing paramagnetic ions in the S-state; Waller's mechanism; acoustic paramagnetic resonance and spin-lattice relaxation in ionic crystals; metals; experimental studies of electron-induced acoustic paramagnetic resonance; nuclear acoustic paramagnetic resonance; experimental studies of nuclear acoustic paramagnetic resonance; shape of the acoustic paramagnetic resonance line; pulse methods used to investigate acoustic paramagnetic resonance; non-resonant paramagnetic absorption of sound; some conclusions

Card 1/3

30397
S/053/61/075/003/002/005
B125/B104

Paramagnetic sound absorption

of the authors: All the effects under consideration are similar to the action of an r-f electric field on paramagnetics. All the principal effects produced by an electromagnetic field in paramagnetics (resonance, spin induction, spin echo, relaxation absorption) can be obtained by means of a sound field. Paramagnetic sound absorption may occur in almost every substance in which also paramagnetic absorption of an r-f electromagnetic field is observable. There are no indications of spin-phonon interaction in solid, free radicals. In liquid and gaseous paramagnetics, paramagnetic sound absorption is weak. Studies of paramagnetic sound absorption can give additional information on the properties of matter, especially on the properties of spin-phonon interaction. The selection rules to be applied to acoustic paramagnetic resonance are different from those to be used for transitions induced by an electromagnetic field. In general, effects produced by sound are by several orders of magnitude stronger than effects induced by an electromagnetic field. The authors refer to Ye.K. Zavoyskiy, B. I. Kochelayev (FTT, 2, 1423 (1960); DAN SSSR 131, 1053 (1960)), A. R. Kessel' (ZhETF 36, 1451 (1959)). There are 5 figures, 5 tables and 68 references: 28 Soviet and 40 non-Soviet. The three most recent references

Card 2/3

24.7900

S/181/62/004/006/028/051
B104/B112

AUTHOR: Leushin, A. M.

TITLE: Acoustic paramagnetic resonance in crystals with ions in the S-state

PERIODICAL: Fizika tverdogo tela, v. 4, no. 6, 1962, 1564 -1572

TEXT: An investigation is made of the paramagnetic resonance in cubic crystals containing ions of the iron group in the S-state. It is shown that the dominant mechanism of absorption of acoustic energy is the modulation of the orbital motion of the electrons by lattice vibrations, the modulation acting through the spin-spin interaction of the electrons on the total spin of a paramagnetic ion. This leads to a reorientation of the total spin with respect to the external magnetic field. The spin-phonon interaction operator is found to be a quadratic function of the spin components. Hence, the selection rule for transitions under acoustic influence has a quadrupole nature. After deriving the matrix elements of the spin-spin and orbit-lattice interactions the following formula is obtained for the sound absorption coefficient:

Card 1/3

Acoustic paramagnetic...

$$\sigma_{\alpha,\beta} = P\omega^2 \left| \sum_{p=1}^{6} a_p \langle \alpha | \mathcal{H}_p | \beta \rangle \right|^2. \qquad (19)$$

where

$$\left.\begin{aligned} \mathcal{H}_2 &= \varepsilon_1 \sqrt{3}(S_x^2 - S_y^2), \\ \mathcal{H}_3 &= \varepsilon_1 (S_x^2 + S_y^2 - 2S_z^2), \\ \mathcal{H}_4 &= \varepsilon_2 (S_x S_y + S_y S_x), \\ \mathcal{H}_5 &= \varepsilon_2 (S_x S_z + S_z S_x), \\ \mathcal{H}_6 &= \varepsilon_2 (S_y S_z + S_z S_y), \end{aligned}\right\} \qquad (20).$$

$P = \pi N_0 R^2 g(\omega)/kTv^3 d$, where N_0 is the number of paramagnetic centers per unit volume, and d is the density of the crystal. It is estimated that $\sigma \simeq 3 \cdot 10^{-25} \omega^2 \cdot cm^{-1}$. σ depends on the splitting of the upper terms of the crystal field, and is therefore different for different crystals.

Card 2/3

ASSOCIATION: Kazanskiy gosudarstvennyy universitet im. V. I. Ul'yanova-Lenina (Kazan' State University imeni V. I. Ulyanov-Lenin)

SUBMITTED: February 2, 1962

√c

Card 3/3

45350

S/181/63/005/002/036/051
B102/B186

24.7900

AUTHOR: Leushin, A. M.

TITLE: Theory of paramagnetic spin-lattice relaxation in crystals with ions in the S-state. Single-phonon processes

PERIODICAL: Fizika tverdogo tela, v. 5, no. 2, 1963, 605 - 615

TEXT: The author develops a theory of paramegntic spin-lattice relaxation of magnetically rarefied crystals with Mn^{2+} or Fe^{3+} ions in the S-state (cf. R. D. Mattuck, M. W. P. Strandberg, Phys. Rev. 119, 1204, 1960). The paramagnetic ion is assumed to be placed in the center of a cubic or octahedral cell formed by its nearest diamagnetic neighbors, relaxation taking place via single-phonon processes. Lattice defects, and the effects of covalency and electron cloud overlapping are neglected. The lattice field potential is assumed to be weak as compared with the free-ion field but stronger than the electron spin-orbital and spin-spin energies. The considerations, valid only for atomic crystals are based on the Hamiltonian $\mathcal{H} = \mathcal{H}_0 + \mathcal{H}_{latt} + \mathcal{V} + P$, where $\mathcal{H}_0$ is the Hamiltonian of the free ion including all spin-independent

Card 1/3

Theory of paramagnetic ...

interactions, $\mathcal{V}$ the ion energy in the lattice field and P the interaction energy operator; the expressions for $\mathcal{H}_{latt}$ and P are taken from FTT, 4, 1564, 1962. It can be shown that relaxation and paramagnetic resonance absorption of sound are mainly determined by modulations of the electron shell of the paramagnetic ion and spin-spin interactions of its electrons. For the Q and $\mathcal{V}$ components, $\mathcal{V}$ being expanded as $\mathcal{V} = \mathcal{V}_0 + \sum_p \mathcal{V}^p Q_p + \sum_{q,p} W^{pq} Q_p Q_q + \ldots$, explicit expressions are obtained; in the case of a cubic cell these expressions are linear combinations of the displacements of the particles from their equilibrium positions. The results of the theory are confronted with experimental data on pressure-induced e.p.r. line shifts, acoustic paramagnetic resonance of MgO with interstitial Mn^{2+} and Fe^{3+} ions, and low-temperature measurements of the Mn^{2+} relaxation time in SrS crystals. M. Blume and R. Orbach (Phys. Rev. 127, 1587, 1962), who also have studied the relaxation of ions in the S-state, have explained the relaxation by spin-orbital interaction. Since their values obtained for the ϵ_p constants are wrong in sign, the present author assumes that his relaxation mechanism

Card 2/3

Theory of paramagnetic ...

S/181/63/005/002/036/051
B102/B186

(spin-spin interaction) is the right one. There is 1 figure.

ASSOCIATION: Kazanskiy gosudarstvennyy universitet im. V. I. Ul'yanova-Lenina (Kazan' State University imeni V. I. Ul'yanov-Lenin)

SUBMITTED: September 24, 1962

Card 3/3

Leushin, A.M.

AID Nr 967-16 15 May

THEORY OF PARAMAGNETIC SPIN-LATTICE RELAXATION IN CRYSTALS WITH IONS IN THE S-STATE, RAMAN SCATTERING OF PHONONS (USSR)

Leushin, A. M. Fizika tverdogo tela, v. 5, no. 3, Mar 1963, 851-861, S/181/63/005/003/022/046

A theoretical study of spin-lattice relaxation occurring through Raman scattering of phonons in crystals doped with paramagnetic ions in the S-state has been carried out. The study is based on the author's former theoretical work on spin-lattice relaxation through single-phonon processes valid only for low temperatures. It is shown that energy transfer from a single ion to the lattice is determined to an equal degree by spin-spin and spin-orbital interaction of the electrons of the paramagnetic ion. The theoretical results are compared to experimental results related to relaxation of Mn^{2+} ions in the SrS lattice. Agreement is obtained with experimental results of Soviet and Western researchers using the methods of continuous and pulsed saturation

Card 1/2

AID Nr 967-16 15 May

THEORY OF PARAMAGNETIC [Cont'd] S/181/63/005/003/022/046

of resonance lines. Lack of evidence of Raman scattering of phonons in acoustical paramagnetic resonance experiments with static deformation of the crystal is explained as caused by the single-phonon nature of resonant paramagnetic absorption of sound. Electron paramagnetic resonance experiments with deformation of crystals can show Raman effects in principle, but require interpretation of nonlinear regions of the complex relationships of EPR shifts to applied stresses. [BB]

Card 2/2

LEUSHIN, A.M.

Splitting of the ground states of Mn^{2+} and Fe^{3+} ions in low-symmetry crystal fields. Fiz. tver. tela 5 no.8:2352-2358 Ag '63. (MIRA 16:9)

1. Kazanskiy gosudarstvennyy universitet im. V.I.Ul'yanova-Lenina.
(Wave mechanics) (Crystallography)

LEUSHIN, A.M.

On g-factors of ions in the S-state in crystals. Fiz. tver. tela 5 no.12: 3373-3377 D '63. (MIRA 17:2)

1. Kazanskiy gosudarstvennyy universitet imeni V.I.Ul'yanova-Lenina.

L 33168-66 ENT(1) AT
ACC NR: AR6016209 SOURCE CODE: UR/0058/65/000/011/D049/D049

AUTHOR: Leushin, A. M.

45
B

TITLE: On g-factors of ions in the S state in crystals

SOURCE: Ref. zh. Fizika, Abs. 11D378

REF SOURCE: Sb. Itog. nauchn. konferentsiya Kazansk. un-ta za 1963 g. Sekts.: paramagnitn. rezonansa, spektroskopii i fiz. polimerov, radiofiz., astron., bion. Kazan', 1964, 5-6

TOPIC TAGS: ion, cubic crystal, epr spectrum, spectral analysis, line splitting, free electron

ABSTRACT: In order to eliminate the difficulties arising in the theoretical explanation of experimentally observed g-factors of ions in the S state, the author undertook a detailed calculation of these factors using as an example ions of the iron group, situated in crystalline field of cubic symmetry. The calculations were made within the framework of the model of the crystalline field, and the latter was taken into account in parallel with the electrostatic interaction of the electrons. This made it possible to explain those values of the g-factors which are larger than the g-factor of the free electron. According to the existing theory of Watanabe, on the other hand, the g-factor should always be smaller than the g-factor of the free electron. [Translation of abstract]

SUB CODE: 20 /

LS
Card 1/1

L 29550-66 EWT(1) AT/GD

ACC NR: AT6014766 SOURCE CODE: UR/0000/64/000/000/0042/0077

AUTHOR: Leushin, A. M.

ORG: none

TITLE: Theory of Stark and Zeeman splitting of magnetic ions in *S*-states in crystals

SOURCE: Paramagnitnyy rezonans (Paramagnetic resonance); sbornik statey. Kazan, Izd-vo Kazanskogo univ., 1964, 42-77

TOPIC TAGS: crystal theory, Hamiltonian, Zeeman effect, Stark effect, line splitting, splitting operator

ABSTRACT: The principal mechanisms responsible for splitting of magnetic ions in the *S*-state in crystals are theoretically studied. The Hamiltonian method is used for describing Stark and Zeeman splitting of the *S*-state. Application of the proposed method is illustrated by setting up the spin Hamiltonian for $S=5/2$ in a crystal with cubic symmetry. The method proposed by Koster and Statz (G. F. Koster, H. Statz, *Phys. Rev.* 113, 445, 1959) for describing the behavior of a paramagnetic ion is discussed on the basis of this same example. A method is proposed for deriving a generalized spin Hamiltonian for Zeeman splitting which is applicable to all ions in the *S*-state and for any type of crystal field symmetry. The final results of this method are given for various types of ions in various crystal fields. The parameters of the

Card 1/2

L 29550-66

ACC NR: AT6014766

spin Hamiltonians are found for splitting of spin levels of ions in the iron group in crystal fields of cubic and lower symmetry as well as in an external magnetic field. Orig. art. has: 20 tables, 52 formulas.

SUB CODE: 20/ SUBM DATE: 04Jun64/ ORIG REF: 004/ OTH REF: 051

Card 2/2

LEUSHIN, N.I.

Study on the causes of the discrepancy between atmospheric location and weather conditions. Trudy GGO no.157:76-84 '64
(MIRA 17:8)

LEUSHIN, N.I., kand. fiz.-matem. nauk

Numbers of lightnings in summer on the European territory of the U.S.S.R. Meteor. i gidrol. no.9:22-28 S '64. (MIRA 17:9)

1. TSentral'nyy institut prognozov.

L 18861-66 EWT(1)/ECC GW

ACC NR: AP6011106 SOURCE CODE: UR/0050/65/000/012/0031/0034

AUTHOR: Leushin, N. I. (Candidate of physical-mathematical sciences); Arbab'evskaya, L. N.

ORG: Central Institute of Forecasts (Tsentral'nyy institut prognozov)

TITLE: Number of lightning strokes in summer in the area covered by the Central Asiatic thunderstorm direction-finding network

SOURCE: Meteorologiya i gidrologiya, no. 12, 1965, 31-34

TOPIC TAGS: lightning, map, meteorology, storm

ABSTRACT: In Meteorologiya i Gidrologiya, No. 9, 1964, N. I. Leushin proposed that thunderstorm activity be characterized by lightning discharges, not by the number of days with thunderstorms. This is done on the basis of the direction-finding method. The mentioned article described in detail a method for conversion from the number of discharges recorded to the actual number of lightning strokes in the European USSR. The method is applied in this article to compilation of a map of the distribution of discharges in the summer season in the area covered by the Central Asiatic network. This network includes four stations: Aral, Ashkhabad, Karaganda and Tashkent, with the control point at Ashkhabad. The maps given here are based on data for the summers of 1962 and 1963; only six days were used for each month. The territory was bounded by the meridians 30 and 85°E and the parallels 25 and 65°N. This entire area was broken down into 5° grid squares. On the map the number of discharges is given

Card 1/2 UDC: 551.594.21

L 18861-66

ACC NR: AP6011106

in thousands per hundred square kilometers. The results are compared with other similar studies. Apparently thunderstorms in Western Siberia are accompanied by a lesser number of lightning strokes than thunderstorms in the European USSR. Orig. art. has: 2 figures and 1 table. [JPRS]

SUB CODE: 04 / SUBM DATE: 17Mar65 / ORIG REF: 001 / OTH REF: 002

Card 2/2

USSR/Medicine-Nervous System Oct 48
Medicine-Vibration, Effect of

"Quantitative Evaluation of Human Sensitivity to Vibrations," P. I. Lenshin, Leningrad Sci Res Hygiene and Sanitation Inst, 4 pp

"Gig i San" No 10

A vibration plane, with variable amplitudes and fluctuation frequencies as basic characteristics of the vibration method, was constructed on the electromagnetic principle of excitation. Experiments performed on ten persons showed possibility of determining the points of sensitivity. Quantity determining the points of the perception of vibration, confirmed with the logarithmic dependency between physical magnitude of vibrations and intensity of their perception. Gives table and graph on vibrations.

19/49T67

35419. K Metodike Opredeleniya Propashnoy Sposobnosti [illegible] Semyan. [illegible]
Trudy(Akad. Kaz... Khoz-In. [illegible]), Vyp. 4-5, 1949, S. 3-6

SO: Letopis' Zhurnal'nykh Statey Vol. 34, Moskva, 1949

LEUSHIN, P. I.

20063 LEUSHIN, P. I. O. vliyanil zelenykh nasazhdeniy na rasprostraneniye ulichnogo shuma Gigiyena i sanitariya, 1949, No. 6, s. 7-12.

SO: LETOPIS ZHURNAL STATEY, Vol. 27, Moskva, 1949.

LEUSHIN, P. I.

Determination of the range of the protective zone around industrial and transport sources of vibration. Gig. sanit., Moskva no.6:7-11 June 1951. (CLML 21:1)

1. Of Leningrad Scientific-Research Sanitary-Hygienic Institute.

LEUSHIN, P. I.

Schools

Good acoustics in schools. Gig. i san. No. 8, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

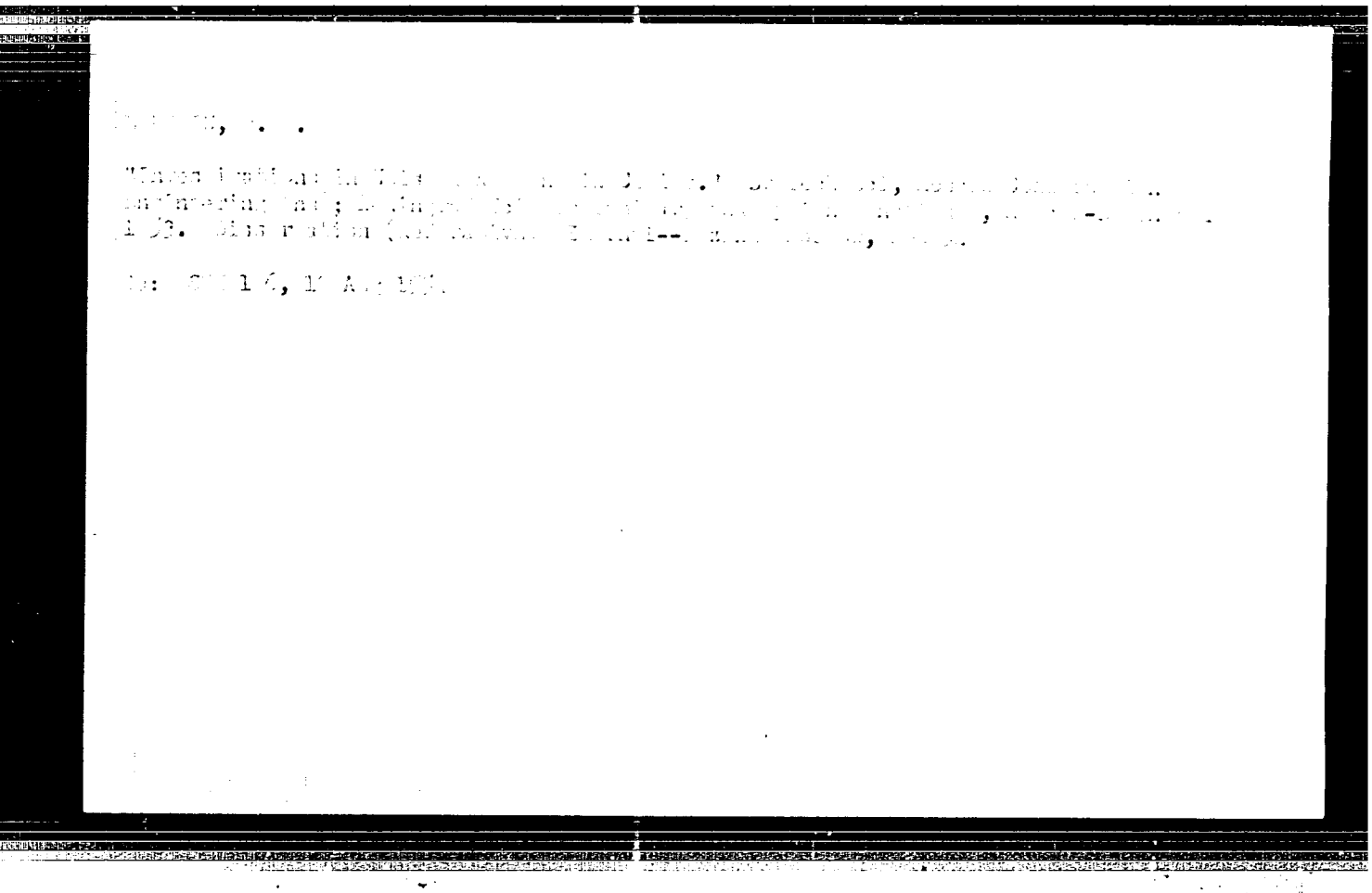
1. LEUSHIN, P. I.

2. USSR (600)

4. Soundproofing

7. Soundproofing internal housing construction, Gig. i san., 17, No. 10, 1952.

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.



LEUSHIN, P.I.; NIKITIN, M.Ya.

Distribution of trees and bushes within the city block in combatting street noise. Gig. i san. no.9:8-15 S '54. (MLRA 7:10)

1. Iz Leningradskogo nauchno-issledovatel'skogo sanitarno-gigiyenicheskogo instituta.

(NOISE,
control by distribution of trees in cities)

SHAFIR, A.I.; NIKITIN, M.Ya.; LEUSHIN, P.I.

Fitted case of instruments used for sanitary examination of living quarters in the praxis of a sanitary physician. Gig. i san. no.11: 40-43 N '54. (MLRA 7:12)

1. Iz Leningradskogo nauchno-issledovatel'skogo sanitarno-gigiyenicheskogo instituta.

(SOCIAL HYGIENE
exam. of living quarters, carrying case for instruments)
(APPARATUS AND INSTRUMENTS
instruments for sanit. exam. of living quarters, carring case)

LEUSHIN, P. I.

"Development of Measures to Insulate Against Liberation and Noise from Intrahome Units (Elevator, Boiler Rooms, Laundries)," paper presented at the Scientific Conference of the Leningrad Sanitation Institute, 8-10 May 1956.

U-3,054,017

LEUSHIN, P.I., starshiy nauchnyy sotrudnik

Vibration and noise characteristics of large-panel houses [with summary in English]. Gig. i san. 24 no.1:25-30 Ja '59. (MIRA 12:2)

1. Iz Instituta radiatsionnoy gigiyeny Ministerstva zdravookhraneniya RSFSR.

(VIBRATIONS,
in large-panel houses (Rus))
(NOISE,
same)
(HOUSING,
noise & vibration in large-panel houses (Rus))

VAYNSHTEYN, P.R., kand.biologicheskikh nauk; LEUSHIN, P.I., kand.tekhn.nauk; SHAFIR, A.I., doktor med.nauk

Physiohygienic principles of permissible levels of noise intensity in multistory apartment houses. Gig. i san. 25 no.3:23-29 Mr '60. (MIRA 14:5)

1. Iz Instituta radiatsionnoy gigiyeny Ministerstva zdravookhraneniya RSFSR.

(NOISE) (APARTMENT HOUSES--SANITATION)

LEUSHIN, S. G.: Master Agric Sci (diss) -- "Vitamin A (carotene) metabolism and supplying cattle with it in Orenburg Oblast". Moscow, 1958. 17 pp (All-Union Sci Res Inst of Animal Husbandry), 150 copies (KL, No 6, 1959, 138)

COUNTRY : USSR
CATEGORY : Farm Animals.
General Problems. 9
ABS. JOUR. : RZhBiol., No. 6, 1959, No. 25774

AUTHOR : Leushin, S. G.
INST. : All-Union Scientific Research Institute of*
TITL. : The A-Vitamin Value of [illegible]
Feeds.

ORIG. PUB. : Byul nauchno-tekhn. inform. Vses. n.-i. in-t zhivotnovodstva, 1958, No 1 (5), 31-34
ABSTRACT : No abstract.

CARD: 1/1

*Animal Husbandry.

[illegible] 7

CARD: 1/1

11

[illegible]

ABSTRACT: Physical conditions in the atmosphere of the peculiar star ε UMa (A0p V) are investigated by means of curves of growth and Balmer lines of hydrogen. The upper limit of electron pressure ($\lg P_e = 2.30$) was obtained from hydrogen lines, and the lower limit ($\lg P_e = 1.60$) from Fe I and Fe II lines. The acceleration of gravity ($\lg g = 3.5$) on the surface of the star was determined from profiles of Hβ, Hγ, Hδ lines. The same quantity, determined from the ratio of mass to radius, was equal: $\lg g = 4.4$. Excitation (7520--9200 K) and ionization (7200--8700 K) temperatures were also determined. The content of chemical elements in the atmosphere of the star, except for C_a, does not differ from the average cosmic content within limits of errors. A shortage of C_a, best noticed when the brightness is minimum, was detected. Turbulent velocity v_l was found to approach 1.5 m/sec. [Translation of abstract] Bibliography of 17 titles. A. Kolesov.

SUB CODE: 03
Card 1/1 UDC: 523.801

Name: LEUSHINA, Anna Mikhaylovna

Dissertation: Training of children for mastering arithmetic material in school

Degree: Doc Ped Sci

Affiliation: [not indicated]

Defense Date, Place: 7 Apr 56, Council of Leningrad State Ped Inst imeni Gertsen

Certification Date: 6 Jul 57

Source: BMVO 18/57

[illegible], [illegible]; [illegible]

Climatic description of the [illegible] Shan. [illegible] nauch.-issl. [illegible] inst. no.[illegible]-227 '65.

(MIRA 18:20)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000929420010-4"

LEUSHINA I.K.

Potentiometric titration with a ferri-ferrocyanide electrode. Determination of copper. L. L. Teodorovich and I. K. Leushina (Central Asia State Univ., Tashkent). *Zhur. Anal. Khim.* 8, 310–5(1953).—In this method, Cu was complexed with NH_4OH and then titrated with $K_4Fe(CN)_6$. To a $CuSO_4$ soln., add NH_4OH until turbidity disappears. Add a few drops of approx. 0.5*M* $K_4Fe(CN)_6$ and titrate potentiometrically with a standard $K_4Fe(CN)_6$ soln. The compn. of the ppt. did not correspond to $Cu_2Fe(CN)_6$. The $CuSO_4$:$K_4Fe(CN)_6$ ratio was 2.043–2.147. In detg. Cu in Paris green quinquevalent As did not interfere, trivalent As interfered and had to be oxidized to the quinquevalent state with H_2O_2. M. Hosch

LEUSHINA, L.I.

Potentials evoked by optic stimulation in different zones of the cerebral hemispheres of animals. Fiziol. zhur. 49 no.12:1400-1409 D '63. (MIRA 17:12)

1. Laboratoriya fiziologii zritel'nogo analizatora Instituta fiziologii im. I.P. Pavlova, AN SSSR, Leningrad.

LEUSHINA, L. I.

FA 36/49T53

USSR/Medicine - Muscles, Physiology
Medicine - Muscles, Contractions

Sep 48

"Tetanic and Tonic Muscular Fibers," Ye. K. Zhukov, L. I. Leushina, Physiol Inst, Leningrad State U, 4 pp

"Dok Ak Nauk SSSR" Vol LXII, No 3

Continues analysis of tonic contraction in solitary fibers isolated from frog muscles. Graphs show response of muscular fiber to direct irritation of induction current, response of tetanic fiber to direct current (0.2 and 0.5 V), response of tonic fiber to direct current (0.2 and 0.4 V),

36/49T52

USSR/Medicine - Muscles, Physiology (Contd) Sep 48

and response of tonic fiber to induction irritation repeated twice a second. Submitted by Acad L. A. Orbeli, 17 Jul 48.

36/49T52

LEUSHINA, L. I.

USSR/Medicine - Frogs
Medicine - Cells, Physiology

Oct 48

"'Transition' Muscular Fibers," Ye. K. Zhukov, L. I. Leushina, 4 pp

"Dok Ak Nauk SSSR" Vol LXIII, No 4

Discovered large number of "transition" muscular fibers in the m. ileofibularis of a frog. These are responsible for intermediate forms of contractionbetween typical tetanic and tone contractions. One of these responds to irritation according to the "all-or-none" law, and in this respect corresponds to tetanic fibers. However, they differ from these fibers in many characteristics. Submitted by Acad L. A. Orbeli, 17 Jul 48.

PA 33/49T72

VERESHCHAGIN, S.M.; ZHUKOV, E.K.; LEUSHINA, L.I.

Role of parabiotic stimulation in tone contraction of the striated muscle. Fiziol.zh.SSSR 36 no.6:673-678 Nov-Dec 50. (CIML 20:6)

1. Laboratory of Comparative Physiology of the Physiological Institute imeni A.A.Ukhtomskiy of Leningrad State University.

LEUSHINA, L. I.

USSR/ Medicine - Physiology

Card 1/1 : Pub. 22 - 45/49

Authors : Aleksandrov, S. N., and Leushina, L. I.

Title : Tonic reaction of relaxed muscular tissues of a frog to the effect acetylcholine

Periodical : Dok. AN SSSR 98/4, 677-679, Oct. 1, 1954

Abstract : Patho-physiological data on the tonic reaction of relaxed muscular tissues of a frog to the effect of acetylcholine ($CH_3CO.O.CH_2-CH_2.N(CH_3)_3$), normally present in many parts of the body and having important physiological functions, are presented. Four USSR references (1947-1953). Graphs.

Institution : Medical Stomatological Institute, Leningrad

Presented by : Academician L. A. Orbeli, May 29, 1954

LEUSHINA, L.I.

USSR/ Medicine - Experimental Neurology

Card 1/1 Pub. 22 - 40/40

Authors : Glezer, V. D.; Gurevich, B. Kh.; and Leushina, L. I.

Title : Differences in the electrical activity of the brain of dogs with various types of higher nervous activity

Periodical : Dok. AN SSSR 99/3, 485-488, Nov 21, 1954

Abstract : Five dogs of definite typological characteristics were investigated to determine the differences in the electrical activity of their brain. The registration of the biotics was carried out on three zones of the dorsal surface of the cerebral cortex of one of the larger hemispheres - frontal, parietal and occiputal. The results obtained are shown in electro-encephalographs. Two USSR references (1951). Graphs.

Institution: Academy of Sciences USSR, The I. P. Pavlov Institute of Physiology

Presented by: Academician K. M. Bykov, June 28, 1954

LEUSHINA, L.I.

Seasonal changes in the motor apparatus in amphibians. Fiziol. zhur. 41 no.3:388-394 My-Je '55. (MLRA 8:8)

1.Kafedra biologii Meditsinskogo stomatologicheskogo instituta, Leningrad.
(MUSCLES, anatomy and histology,
seasonal changes in frogs)
(FROGS AND TOADS,
seasonal musc. changes)

LEUSHINA, L. I

USSR/Physics - Biophysics

Card 1/1 Pub. 22 - 17/51

Authors : Leushina, L. I.

Title : On the role of eye movements in the evaluation of distances

Periodical : Dok. AN SSSR 101/5, 849-852, Apr. 11, 1955

Abstract : Experiments were conducted to determine the role played by the external muscles of the eye in judging distances. An analysis of the results is given. Two USSR references (1947). Tables; graphs.

Institution : Acad. of Sc., USSR, I. P. Pavlov's Institute of Physiology

Presented by : Academician K. M. Bykov, October 22, 1954

USSR/Human and Animal Physiology. Neuromuscular Physiology T-11

Abs Jour : Ref Zhur- Biol., No 14, 1958, No 65602

Author : ~~Ivushina L.I.~~
Inst : Leningrad State University
Title : Neurohumoral Mechanisms for the Seasonal Change-over in the Activity of the Musculature from Tetanus to Tonus

Orig Pub : Uch. zap. LGU, 1957, No 222, 74-86

Abstract : A suspension of pulverized frog pituitary in Ringer's solution was injected into the spinal lymphatic sacs of hibernating frogs (three pituitaries per frog). Ringer's solution alone was injected in to the control animals. After pituitary was infected into the frogs, a hugging reflex developed. In addition the chronaxie of the muscles was prolonged and their tension increased; this is characteristic for the natural spring change-over of the musculature. Consequently, the spring change-over in the musculature of amphibians results from hormonal factors.

Card : 1/2

Abs Jour : Ref Zhur - Biol., No 14, 1958, No 65602

Following the injections the denervated muscles did not differ from the muscles of normal hibernating frogs, while the muscles of the control (not denervated) extremity possessed signs characteristic of the spring season. A leading role in the hormonal spring change-over belongs to the central nervous system. Its effect is accomplished for the most part via the fibers of the sympathetic nervous system.--F.I. Mumladze

LEUSHINA, L.I.

Role of ocular movements in the fiddrentiation of form and distance in a plane. Probl.fiziol.opt. 12:314-320 '58 (MIRA 11:6)

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